

Work Order ID 149329

July 22, 2016 2:41:56 PM

149329

AMOD DG

Page 1

Item ID: D3443-043 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Strut Weldment Assembly
 Start Date: 9/23/2016 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 9/30/2016 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: 344 Date: 7/25/16 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D3443	Rev C								
100	Weld per dwg A/R S.S. rod Batch: <u>134992</u>	0.00				<u>6</u>		<u>16-04-04</u>	
100	Large Fab								
	Memo	0.15							
	Weld assembly as per dwg D3443								
110	QC9- Inspect visual per QSI004- Fusion Welds	0.00				<u>6</u>	<u>16-10-4</u>		
110									
	Memo	0.00							
	Quality Control								
120	QC5- Inspect part completeness to step on W/O	0.00				<u>6</u>		<u>EB</u>	
120									
	Memo	0.02							
	Quality Control							<u>16-10-04</u>	

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☒ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : <u>16-10-13</u>		Step #: <u>131</u>		QTY Effective : <u>6</u>			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
Parts came out too glossy, need to be flatter				strip and Repaint Primer Batch # <u>135172</u> Paint Batch # <u>135778</u>				DAS 41 9-89 <u>16-10-13</u>	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ ☒ Finish ☐ Misread ☐ Turning Sequence ☐					
				OTHER :					

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N900040100

Setup Start *NS1*

Stop *NS2*

6

Cust Item ID:

6

Customer:

Required Date: 9/30/2016 **Req'd Qty:** 6.00

Reference:

Run Start *NR1*

Stop *NR2*

**Insp.
Stamp**

Identify as per dwg & Stock Location: 5A

0.00

150

Packaging

Memo

0.01

Packaging

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.10

Quality Control

DAS
21
9-89

OCT 14 2016

DAS
21
9-89

OCT 14 2016

Picklist Print

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Work Order ID: 149329

149329

Parent Item: D3443-043

D3443-043

Parent Item Name: Strut Weldment Assembly

Start Date: 9/23/2016

Required Date: 9/30/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV. A 05.11.17 NEW ISSUE EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3443-3 *D3443-3* Clevis		Manufactured	No			100	Each	13.0000	1	6			
									**				
					<u>Location</u>	<u>Loc Qty</u>			<u>Loc Code</u>				
					WA002 149365	13				6			
					146837	13							
D3443-7 *D3443-7* Tubing		Manufactured	No			100	Each	4.0000	1	6			
									**				
					<u>Location</u>	<u>Loc Qty</u>			<u>Loc Code</u>				
					WA002 149327	4				6			
					144759	4							
D3966-4-750 *D3966-4-750* Pin, Dowel		Manufactured	No			100	Each	171.0000	1	6			
									**				
					<u>Location</u>	<u>Loc Qty</u>			<u>Loc Code</u>				
					WA002	171				6			
					126225	171							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

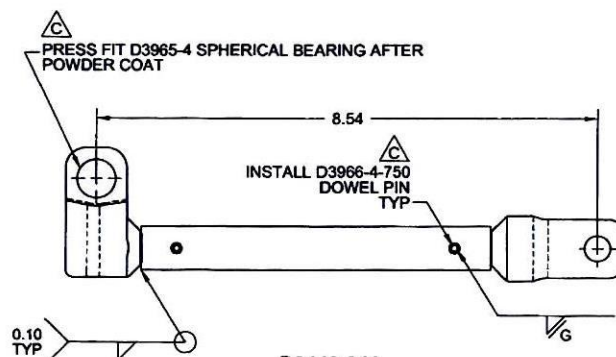
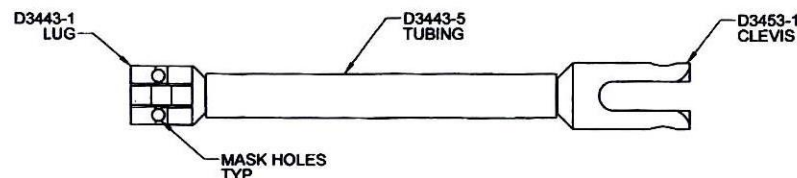
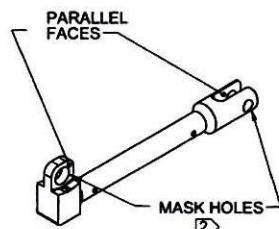
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				OTHER : _____			

8 7 6 5 4 3 2 1



ITEM	QTY	P/N	DESCRIPTION
1	X	D3443-041	STRUT WELDMENT ASSEMBLY
2	1	D3443-1	LUG
3	1	D3443-5	TUBING
4	1	D3453-1	CLEVIS
5	1	D3965-4	BEARING, SPHERICAL
6	2	D3966-4-750	PIN, DOWEL

RELEASED

SW 7/25/16 149329

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 NO POWDER COAT IN HOLES
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 1.33 lbs
- 8) WELD PER DART QSI 004

C	DRAWING UPDATED TO CURRENT STANDARDS. REVISED NOTE #2 (ZN A8-1, A8-2); 0.820 WAS 0.720 & 1.43 WAS 1.53 (ZN C2-3); 0.551 WAS 0.451 (ZN C1-3); R0 219 WAS R0.050 (ZN C4-3); D3965-4 WAS SPAENAU P/N (ZN C8-1, B5-2); D3966-4-750 WAS McMASTER-CARR P/N (ZN B5-1); REF PAR 09-018	RF	09.06.25
B	ADDED -9 PIN, REMOVED BALL PLUNGER; REVISE TOLERANCE, & 0.0.125 WAS #30	RF	05.12.05
A	NEW ISSUE	RF	05.09.02
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.06.25		

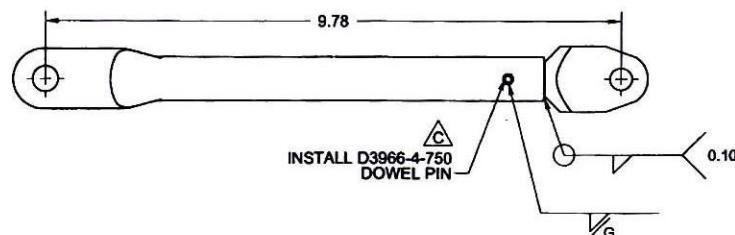
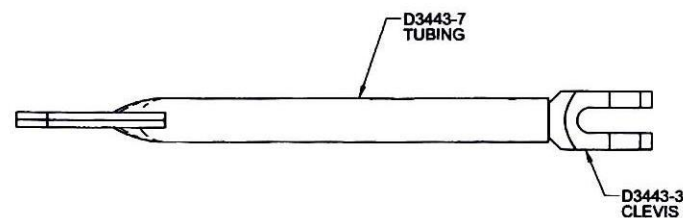
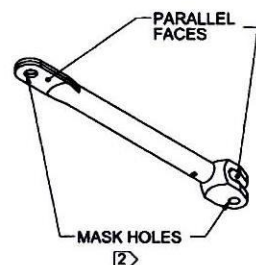
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3443
REV. C
SHEET 1 OF 4
SCALE
STRUT WELDMENT ASSEMBLY NTS

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8 7 6 5 4 3 2 1

ITEM	QTY -043	P/N	DESCRIPTION
1	X	D3443-043	STRUT WELDMENT ASSEMBLY
2	1	D3443-3	CLEVIS
3	1	D3443-7	TUBING
4	1	D3966-4-750	PIN



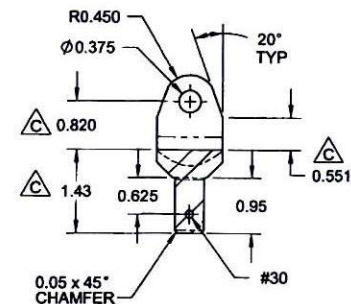
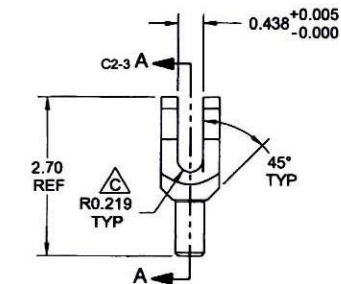
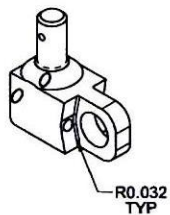
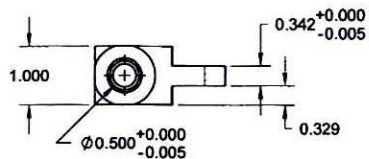
D3443-043

RELEASED
9/10/25/14

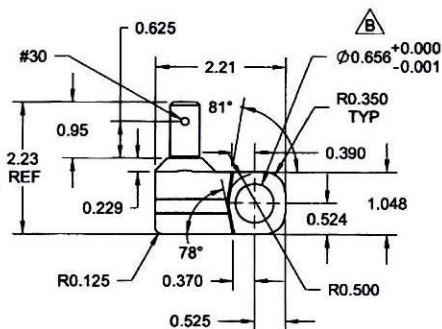
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
NO POWDER COAT IN HOLES
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.97 lbs
- 8) WELD PER DART QSI 004

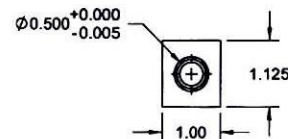
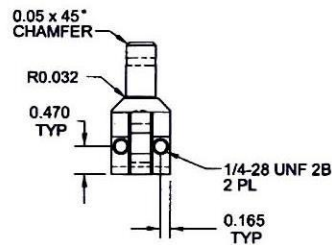
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DRAWN	RF		
CHECKED	CA	DRAWING NO. D3443	REV. C
MFG. APPR.		TITLE STRUT WELDMENT ASSEMBLY	SHEET 2 OF 4
APPROVED		SCALE	
DE APPR.		COPYRIGHT © 2005 BY DART AEROSPACE LTD	
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SECTION A-A C4-3



D3443-1 LUG



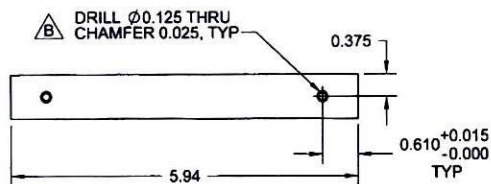
D3443-3 CLEVIS

RELEASED
09/08/25/14

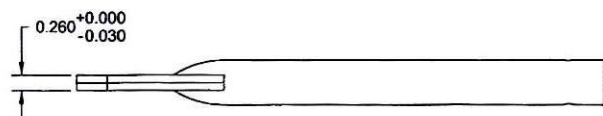
NOTES:

- 1) MATERIAL: D3443-1 = 17-4 SS PER AMS 5604/5643 (REF DART SPEC M17-4B)
D3443-3 = AISI 304 SS ROUND BAR (REF. DART SPEC M304R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3443-1 = 0.50 lbs
D3443-3 = 0.35 lbs

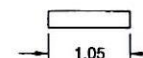
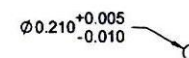
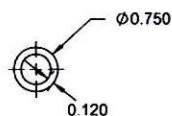
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3443	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		STRUT WELDMENT ASSEMBLY	NTS
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D3443-5 TUBING



D3443-7 TUBING



D3443-9 PIN

D3443-9 NOTES:

- 1) MATERIAL: DELRIN II 150R OR ACETRON GP ACETAL (REF. DART SPEC M-DELRIN-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

RELEASED

D3443-5/-7 NOTES:

- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC M304TR0.750W.120)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.025 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3443-5 = 0.41 lbs
D3443-7 = 0.62 lbs

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D3443	SHEET 4 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	STRUT WELDMENT ASSEMBLY	NTS
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